

Curricular Change EFD Template



College of Engineering

Engineering Faculty Document

No.: 52-25

September 26, 2024

TO: The Engineering Faculty
FROM: The Faculty of the Agricultural and Biological Engineering Department
RE: Engineering Concentration Modification

The Faculty of the department has approved the following edits to a Concentration from the College of Engineering. This action is now submitted to the Engineering Faculty with a recommendation for approval.

TITLE:

Change name from "Fluid Power" to "Fluid Power and Motion Control"

DESCRIPTION:

- Remove classes no longer being offered
- Edit courses to reflect those that now have permanent numbers
- Add more courses to "Group B" list for flexibility and broader offerings

RATIONALE:

The Fluid Power Concentration has been in existence for some time and needs to accurately reflect course changes that have occurred in recent years. The selections offered in Group B offer more variety and we have attempted to clarify the language and instructions for obtaining the concentration.

A handwritten signature in black ink, appearing to read 'N. H. Smith'.

Head/Director of the Department

Link to Curriculog entry:

[Paste link to Curriculog entry.]

Plan of study:

Concentration: Fluid Power and Motion Control

To fulfill the requirements for the Fluid Power and Motion Control concentration, students must complete at least nine credit hours from the courses listed below (Group A or B), at least three of which must be from Group A.

Group A focuses on fluid power theories and applications, while Group B includes courses essential for the design, modeling, optimization, and control of fluid power systems.

Group A - Fluid Power Theories and Applications

ABE 43500	Hydraulic Control Systems for Mobile Equipment
ABE 53500 / ME 53500	Design and Modeling of Fluid Power System (new, permanent numbers)
ME 55600	Lubrication, Friction, & Wear
ABE 69100	Hydraulic Power Trains and Hybrid Systems (not offered)

Group B - Supporting Topics

ABE 53100	Instrumentation and Data Acquisition
ABE 54500	Design of Off-Highway Vehicles
ECE 51000	Hybrid Electric Vehicles
ECE 61000	Electromagnetic and Electromechanical Component Design
ME 57500	Theory and Design of Control Systems
ME 58500	Instrumentation for Engineering Measurements
ME 61400	Computational Fluid Dynamics
ME 55600	Lubrication, Friction, & Wear